REMARKS/ARGUMENTS

Claims 1-10, 12-23, and 25-26 are pending. Applicants, by this paper, amend claims 1 and 25. Applicants respectfully request reconsideration and allowance of all pending claims.

Discussion of Rejections Under 35 U.S.C. §112

Claims 1 and 25 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Examiner states that it is unclear what the "filter circuit" is comprised of based on line 4 of claim 1.

Applicants amend claims 1 and 25 to recite that "a switch configured to selectively couple one of the at least two filter components to another of the plurality of elements." Applicants respectfully assert that claims 1 and 25 satisfy 35 U.S.C. §112, second paragraph.

Applicants respectfully request reconsideration and withdrawal of the rejections based on 35 U.S.C. §112, second paragraph.

Discussion of Rejections Under 35 U.S.C. §103

Claims 1-2, 5-10, 12, and 20 were rejected under 35 U.S.C. §103(a) as allegedly being anticipated by GB 2,081,543 to Cox (hereinafter Cox) in view of SU 771,891B to Zavodii.

Applicants respectfully assert that **claim 1** and its dependent claims are patentable over Cox in view of Zavodii. The Examiner acknowledged on page 3 of the Office Action that Cox does not disclose a switched configured to generate a pseudo random switch control signal. The Examiner cited the abstract of Zavodii in combination with Cox as rendering claim 1 obvious. The abstract and title of Zavodii discuss that a pseudo random signal can be shifted out of a register as part of a feedback loop, but say nothing about using the pseudo random signal to control a switch, let alone to control a switch as recited in claim 1. The combination of Cox and Zavodii, therefore, fails to teach, disclose, or suggest a switch controlled by a pseudo random signal or a configurable element value based in part on such a signal. Claim 1, conversely,

recites a switch control module configured to generate a pseudo random switch control signal to control a switch in a configurable element to selectively switch between two filter components where a value of the configurable element is based in part on a percentage of time that the switch control signal selectively couples a first of filter component to another element. For at least these reasons, claim 1 is, and claims 2, 5-10, and 12 that depend from claim 1 are, patentable over Cox in view of Zavodii.

Applicants respectfully assert that **independent claim 20** is also patentable over Cox in view of Zavodii. Cox does not disclose a configurable element having a value based on a pseudo random control signal and Zavodii discusses using a pseudo random signal as part of a feedback loop but does not teach, disclose, or suggest, alone or in combination with Cox, a configurable element having a value based in part on a pseudo random signal. Claim 20, on the other hand, recites at least one configurable element having a value based in part on a fractional period in which a pseudo random control signal is at a first signal level. For at least these reasons, claim 20 is patentable over Cox in view of Zavodii.

Claims 3-4 and 25 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Cox in view of Zavodii in view of U.S. Patent No. 6,975,846 to Chang et al. (hereinafter Chang). Claims 3-4 depend from claim 1. The Examiner has not asserted that Chang makes up for the deficiencies in Cox and Zavodii noted above with respect to claim 1, and thus claims 3-4 are patentable for at least the reasons noted above with respect to claim 1.

Applicants respectfully assert that **independent claim 25** is also patentable over Cox in view of Zavodii in view of Chang. Chang was cited as disclosing an RF integrated circuit comprising an amplifier, a mixer, and a reconfigurable filter. Neither Chang nor Cox nor Zavodii, however, alone or in combination, discloses a switch control module configured to generate a control signal comprising pseudo random bit sequence to control a switch to selectively switch between filter components of a configurable element, with a value of a configurable element being based in part on the switch control signal, as recited in claim 25. The vague discussion of a pseudo random signal in Zavodii does not suggest the specific configuration recited in claim 25. Thus, for at least these reasons, independent claim 25 is patentable over Cox in view of Zavodii in view of Chang.

Independent claim 21 was rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Cox in view of Zavodii in view of U.S. Patent No. 5,305,004 to Fattaruso. Fattaruso discusses using a pseudo random number generator 74 to select which of multiple capacitors to charge for received digital signals to remove capacitor mismatch that causes digital to analog conversion nonlinearity, instead introducing white noise. Fattaruso does not discuss determining a desired filter response or using a pseudo random switching signal to control a switch to produce the desired filter response. Conversely, claim 21 recites a method of configuring a filter response that includes determining a fractional switching time that produces a desired filter response and selectively switching between first and second switch configurations based on a pseudo random switching signal that controls switches to the first switch configuration for the fractional switching time. For at least these reasons, independent claim 21 is patentable over Cox in view of Zavodii in view of Fattaruso.

Independent claim 26 was rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Cox in view of Chang in view of U.S. Patent App. No. 2004/0196934 to Petrov in further view of Zavodii. Petrov was cited as discussing that a filter response may be controlled by a baseband processor in accordance with a desired mode of operation. Petrov, however, like Zavodii, does not teach, disclose, or suggest a baseband processor configured to control a fractional period of a pseudo random signal at a first signal level on which a value of a configurable filter element is based. Claim 26, conversely, recites a baseband processor integrated circuit including a reconfigurable filter comprising a configurable element having a value based in part on a fractional period in which a pseudo random control signal is at a first signal level and a baseband processor configured to generate a mode select signal that controls, in part, the fractional period in which the pseudo random control signal is at the first signal level. For at least these reasons, independent claim 26 is patentable over Cox in view of Chang in view of Petrov in further view of Zavodii.

Independent claim 13 was rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Cox in view of Zavodii. The vague discussion of a pseudo random signal in Zavodii does not, even when combined with Cox, suggest a filter in which a switch can be controlled to select different configurations of elements based on a pseudo random signal to

provide different filter responses. Claim 13, conversely, recites a reconfigurable filter including different combinations of elements that provide different filter responses, and a switch control module configured to generate a pseudo random sequence to control which of the configurations is selected. For at least these reasons, independent claim 13 is patentable over Cox in view of Zavodii.

Claims dependent on claim 13 were rejected under various combinations of references. **Claim 14** was rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Cox in view of Zavodii in view of Fattaruso. **Claim 15** was rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Cox in view of Zavodii in view of U.S. Patent App. No. 2004/0228416 to Anderson. **Claims 16-17** were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Cox in view of Zavodii in view of Anderson in further view of U.S. Patent No. 5,181,033 to Yassa et al. (hereinafter Yassa). Fattaruso does not make up for the deficiencies noted in Cox and Zavodii with respect to claim 13, nor does the Examiner assert that Anderson or Yassa do. Thus, claims 14-17 are patentable for at least the reasons noted above with respect to claim 13.

Claims 18-19 were rejected under 35 U.S. C. 103(a) as allegedly unpatentable over U.S. Patent No. 6,329,939 to Swaminathan et al. (hereinafter Swaminathan) in view of Cox in view of allegedly admitted prior art and further in view of Zavodii. The Examiner noted that neither Swaminathan nor Cox disclose a pseudo random switch control signal. Zavodii discusses a pseudo random signal but does not teach, disclose, or suggest, even in combination with Cox, to use the pseudo random signal to control which of multiple filter components are selected. Independent claim 18, however, recites a reconfigurable filter including first and second filter components in series with respective switches and a switch control module configured to generate a pseudo random switch control signal to control the switches to selectively switch between the first and second filter components. For at least these reasons, claims 18-19, with claim 19 depending from claim 18, are patentable over Swaminathan in view of Cox in view of allegedly admitted prior art in view of Zavodii.

Claims 22-23 were rejected rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Cox in view of Zavodii in fiew of U. S. Patent Application No. 2003/0224752

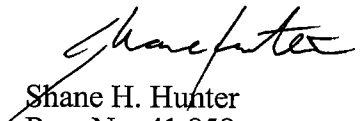
to Rawlins et al. (hereinafter Rawlins). The Examiner does not assert that Rawlins makes up for the deficiencies of Cox and Zavodii noted above with respect to independent claim 21 upon which claims 22-23 depend. Thus, claims 22-23 are patentable for at least the reasons noted above with respect to claim 21.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 858-350-6100.

Respectfully submitted,



Shane H. Hunter
Reg. No. 41,858

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 858-350-6100
Fax: 415-576-0300
Attachments
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